

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An information processing apparatus for connecting to a network to which a plurality of devices are connected, and executing a process of generating an access control list, comprising:

a reception unit configured to receive a packet from a client that serves as an access requesting apparatus through the network;

a storage unit configured to store a MAC list in which information for one client is set as registration data for one slot, the MAC list including a pre-determined number of empty slots that define openings in the MAC list for additional devices to be granted permission to access the information processing apparatus, ~~[[one]]~~ the pre-determined number of the empty slots being set to change from empty to closed after a predetermined amount of time has lapsed, a closed slot being a slot on the MAC list that cannot be occupied by any device;

a registration permission judgment unit configured to confirm whether or not there is an empty slot in the MAC list and to judge that a registration is permitted only if there is the empty slot in the MAC list, in a client registration process based on a received packet at the reception unit;

a registration processing unit configured to acquire data containing a client MAC address from the received packet and to execute a registration process for the MAC list, in accordance with a judgment of the registration permission by the registration permission judgment unit; and

a control unit configured to change the ~~[[one]]~~ pre-determined number of the empty slots from empty to closed in response to the lapse of the predetermined amount of time so that no empty slots exist in the MAC list.

Claim 2 (Previously Presented): The information processing apparatus according to claim 1, wherein

the registration processing unit is configured to acquire a sender MAC address contained in a header field of the packet received from the client and to adopt the acquired sender MAC address as registration information of the MAC list.

Claim 3 (Previously Presented): The information processing apparatus according to claim 1, further comprising:

a packet analysis unit configured to judge whether the packet received from the client is a registration processing request packet or a data processing request packet, wherein

if the packet received from the client is the registration processing request packet, the registration permission judgment unit executes a registration permission judgment process in accordance with a presence/absence detection process for the empty slot in the MAC address, and

the registration processing unit executes a registration process in accordance with the judgment of the registration permission by the registration permission judgment unit.

Claim 4 (Previously Presented): The information processing apparatus according to claim 1, wherein

if the packet received from the client is the data processing packet, the registration permission judgment unit executes the registration permission judgment process in accordance with the presence/absence detection process for the empty slot in the MAC address, and

the registration processing unit executes the registration process for the MAC list in accordance with the judgment of the registration permission by the registration permission

judgment unit, by acquiring the data containing the client MAC address from the received data processing request packet.

Claim 5 (Canceled).

Claim 6 (Previously Presented): The information processing apparatus according to claim 1, wherein

the registration permission judgment unit is configured to execute a process of judging whether or not a data processing request sequence from the client correctly and reliably executes a sequence in conformity with a UPnP protocol, and

the registration processing unit is configured to execute the registration process for the MAC list in accordance with a judgment that the data processing request sequence from the client correctly and reliably executes the sequence in conformity with a UPnP protocol, by acquiring the data containing the client MAC address from the received data processing request packet.

Claim 7 (Previously Presented): The information processing apparatus according to claim 1, wherein

the registration permission judgment unit is configured to judge whether a content directory service (CDS) request process in the sequence in conformity with the UPnP protocol is executed or not in response to a data processing request from the client, and

the registration processing unit is configured to execute the registration process for the MAC list in accordance with a judgment that the content directory service (CDS) request process is executed, by acquiring the data containing the client MAC address from the received data processing request packet.

Claim 8 (Previously Presented): The information processing apparatus according to claim 1, wherein

the registration processing unit is configured to execute the registration process for the MAC list by acquiring the MAC address and identification information different from the MAC address stored in the packet received from the client.

Claim 9 (Previously Presented): The information processing apparatus according to claim 8, wherein

the identification information different from the MAC address is identification information of global unique ID information or key information set to a client apparatus.

Claim 10-12 (Canceled).

Claim 13 (Currently Amended): A server client system for connecting to a network to which a plurality of devices are connected and receiving an access request, comprising:

a client configured to, detect an activation of a communication process in the network based on a power-on process or an activation of a specific application, and to generate and transmit an access control list registration processing request packet storing a client MAC address in header information by using the detected information as a trigger; and

a server, including,

a storage unit configured to store a MAC list in which information for one client is set as registration data for one slot, the MAC list including a pre-determined number of empty slots that define openings in the MAC list for additional devices to be granted permission to access the information processing apparatus, ~~[[one]]~~ the pre-determined number of the empty slots being set to change from empty to closed after a predetermined

amount of time has lapsed, a closed slot being a slot on the MAC list that cannot be occupied by any device;

a registration permission judgment unit configured to confirm whether or not there is an empty slot in the MAC list and to judge that a registration is permitted only if there is the empty slot in the MAC list, in a client registration process based on a packet received from the client;

a registration processing unit configured to acquire the client MAC address from the received packet and to execute a registration process for the MAC list, in accordance with a judgment of the registration permission by the registration permission judgment unit; and

a control unit configured to change the ~~[[one]]~~ the pre-determined number of the empty slots from empty to closed in response to the lapse of the predetermined amount of time so that no empty slots exist in the MAC list.

Claim 14 (Previously Presented): The client server system according to claim 13, wherein

the server is configured to execute a process of acquiring a sender MAC address contained in a header field on a packet received from the client and adopt the acquired sender MAC address as registration information for the MAC list.

Claim 15 (Currently Amended): An information processing method of generating an access control list in a router, comprising:

connecting, with a connecting unit in the router, to a network to which a plurality of devices are connected;

receiving, with a receiving unit in the router, a packet from a client that serves as an access requesting apparatus;

storing, at the router, a MAC list in which information for one client is set as registration data for one slot, the MAC list including a pre-determined number of empty slots that define openings in the MAC list for additional devices to be granted permission to access the information processing apparatus, [[one]] the pre-determined number of the empty slots being set to change from empty to closed after a predetermined amount of time has lapsed, a closed slot being a slot on the MAC list that cannot be occupied by any device;

judging, at the router, whether or not there is an empty slot in the MAC list and permit a registration only if there is the empty slot in the MAC list, in a client registration process based on a received packet at the receiving unit;

acquiring, at the router, data containing a client MAC address from the received packet and to execute a registration process for the MAC list, in accordance with a judgment of the registration permission by the registration permission judgment unit; and

changing, at the router, the [[one]] pre-determined number of the empty slots from empty to closed in response to the lapse of the predetermined amount of time so that no empty slots exist in the MAC list.

Claim 16 (Previously Presented): The information processing method according to claim 15, further comprising:

acquiring, with the acquiring unit in the router, a sender MAC address contained in a header field of the packet received from the client, and adopting the acquired sender MAC address as registration information of the MAC list.

Claim 17 (Previously Presented): The information processing method according to claim 15, further comprising:

judging, with the judging unit in the router, whether the packet received from the client is a registration processing request packet or a data processing request packet, wherein

if judged that the packet received from the client is the registration processing request packet, executing a registration permission judgment process in accordance with a presence/absence detection process for the empty slot in the MAC address.

Claim 18 (Previously Presented): The information processing method according to claim 15, wherein

if the packet received from the client is the data processing packet, executing the registration permission judgment process in accordance with the presence/absence detection process for the empty slot in the MAC address; and executing the registration process for the MAC list in accordance with the judgment of the registration permission by the registration permission judgment unit, by acquiring the data containing the client MAC address from the received data processing request packet.

Claim 19 (Canceled).

Claim 20 (Previously Presented): The information processing method according to claim 15, further comprising:

judging, with the judging unit in the router, whether or not a data processing request sequence from the client correctly and reliably executes a sequence in conformity with a UPnP protocol; and

executing, with an executing unit in the router, the registration process for the MAC list by acquiring the data containing the client MAC address from the packet received from

the client in accordance with a judgment that the data processing request sequence from the client correctly and reliably executes the sequence in conformity with a UPnP protocol.

Claim 21 (Previously Presented): The information processing method according to claim 15, further comprising:

judging, with the judging unit in the router, whether a content directory service (CDS) request process in the sequence in conformity with the UPnP protocol is executed or not in response to a data processing request from the client; and

executing, with an executing unit in the router, the registration process for the MAC list in accordance with a judgment that the content directory service (CDS) request process is executed, by acquiring the data containing the client MAC address from the packet received from the client.

Claim 22 (Previously Presented): The information processing method according to claim 15, further comprising:

executing, with an executing unit in the router, the registration process for the MAC list by acquiring the MAC address and identification information different from the MAC address stored in the packet received from the client.

Claim 23 (Previously Presented): The information processing method according to claim 22, wherein

the identification information different from the MAC address is identification information of global unique ID information or key information set to a client apparatus.

Claim 24-26 (Canceled).



Claim 27 (Currently Amended): A non-transitory computer-readable storage medium encoded with instructions, which when executed configure a router to generate an access control list method comprising:

connecting, with a connecting unit in the router, to a network to which a plurality of devices are connected, and receiving a packet from a client that serves as an access requesting apparatus;

storing, at the router, a MAC list in which information for one client is set as registration data for one slot, the MAC list including a pre-determined number of empty slots that define openings in the MAC list for additional devices to be granted permission to access the information processing apparatus, ~~[[one]]~~ the pre-determined number of the empty slots being set to change from empty to closed after a predetermined amount of time has lapsed, a closed slot being a slot on the MAC list that cannot be occupied by any device;

judging, at the router, whether or not there is an empty slot in the MAC list and permit a registration only if there is the empty slot in the MAC list, in a client registration process based on a received packet at the receiving unit;

acquiring, at the router, data containing a client MAC address from the received packet and to execute a registration process for the MAC list, in accordance with a judgment of the registration permission by the registration permission judgment unit; and

changing, at the router, the ~~[[one]]~~ predetermined number of the empty slots from empty to closed in response to the lapse of the predetermined amount of time so that no empty slots exist in the MAC list.

Claim 28 (Canceled).